

CLAIMS

1. A granular detergent composition having easy measurability and distributivity suitable for spoon measurement, a bulk density thereof being 500 g/L or more, comprising a surfactant, a water-insoluble inorganic compound and a water-soluble salt, wherein the granular detergent composition has a variance of powder dropping rate V of 1.0 or less, an inserting pressure P of 80 gf/cm or less, a Δ dropping ratio D of 14% or less, and an index K of from 30 to 230, the index K being represented by the equation (1):

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$$K = P \times \exp (0.135 \times D) \quad (1)$$

wherein P stands for an inserting pressure (gf/cm), and D stands for a Δ dropping ratio (%).

15 2. A process for preparing a granular detergent composition having easy measurability and distributivity suitable for spoon measurement, a bulk density thereof being 500 g/L or more, comprising a surfactant, a water-insoluble inorganic compound and a water-soluble salt, wherein the process comprises carrying out a particle size adjustment, a granular shape adjustment and an adjustment of intergranular cohesive forces such that detergent particles constituting the granular detergent composition have a variance of powder dropping rate V of 1.0 or less, an inserting pressure P of 80 gf/cm or less, a Δ dropping ratio D of 14% or less, and an index K of from 30 to 230, the index K being represented by the equation (1) as defined in claim 1.

3. The process for preparing a granular detergent composition according to claim 2, wherein the particle size adjustment, the granular shape adjustment and the adjustment of intergranular cohesive forces are carried out such that the detergent particles constituting the granular detergent composition have an average particle size, a particle size distribution (Rosin-Rammler's distribution index) and a fine powder ratio of a particle size of 125 μm or less, factors showing a particle size of the detergent particles, of from 200 to 500 μm , 2.0 or more, and 10% or less, respectively, and have a degree of spherocity, showing a granular shape, of from 100 to 150, and have a tensile strength of a powder layer, showing intergranular cohesive forces of 30 mN or less, further wherein two or more of the properties selected from the group consisting of the average particle size, the particle size distribution (Rosin-Rammler's distribution index), the fine powder ratio of a particle size of 125 μm or less, the degree of spherocity and the tensile strength of a powder layer satisfy the following ranges:

10 average particle size: 220 to 450 μm ;

15 particle size distribution (Rosin-Rammler's distribution index): 2.6 or more;

fine powder ratio of a particle size of 125 μm or less: 6% or less;

degree of spherocity: 100 to 145; and

tensile strength of a powder layer: 15 mN or less

and such that the detergent particles have a variance of powder dropping rate V of 1.0 or less, an inserting pressure P of 80 gf/cm or less, and a Δ dropping ratio D of 14% or less, and an index K of from 30 to 230, the index K being represented by the equation (1) as defined in claim 1.